

**Draft  
Environmental Assessment**

**Dome Mountain Wildlife Management Area  
Agricultural Lease**

**DRAFT  
March 16, 2012**



***Montana Fish,  
Wildlife & Parks***

**Draft**

# Environmental Assessment MEPA, NEPA, MCA 23-1-110 CHECKLIST

## **PART I. PROPOSED ACTION DESCRIPTION**

**1. Type of proposed state action:** Renew an agricultural (hay) lease on the Dome Mountain Wildlife Management Area for a 3-year period (2012-2015)

**2. Agency authority for the proposed action:**

FWP has the authority under Section 87-1-201 MCA to protect, enhance, and regulate the use of Montana's fish and wildlife resources for public benefit now and in the future. In addition in accordance with the Montana Environmental Policy Act, Montana Fish, Wildlife & Parks (MFWP) is required to assess the impacts that any proposal or project might have on the natural and human environments. Further, MFWP's land lease-out policy as it pertains to the disposition of interest in Department lands (89-1-209) requires and Environmental Assessment (EA) to be written for all new agricultural leases, lease extensions, or lease renewals. The FWP Commission is the appropriate level of authority to provide approval for this renewal because the value of the lease is greater than \$5,000.

**3. Anticipated Schedule:**

The agricultural lease will commence April 15, 2012, and will expire December 31, 2015. Agricultural activities will take place between April 15 and September 30 of each year depending on onset of spring conditions and availability of water for irrigation (water rights end on September 30).

**5. Location affected by proposed action (see Appendix A for map of area):**

Approximately 140 acres within S1/2 Sec. 2, T7S, R7E and approximately 10 acres within N1/2, NE1/4 Sec. 11, T7S, R7E, Park County, Montana.

**6. Project size -- estimate the number of acres that would be directly affected that are currently:**

|                       | <u>Acres</u> |                    | <u>Acres</u> |
|-----------------------|--------------|--------------------|--------------|
| (a) Developed:        |              | (d) Floodplain     | <u>0</u>     |
| Residential           | <u>0</u>     |                    |              |
| Industrial            | <u>0</u>     | (e) Productive:    |              |
| (existing shop area)  |              | Irrigated cropland | <u>150</u>   |
| (b) Open Space/       | <u>0</u>     | Dry cropland       | <u>0</u>     |
| Woodlands/Recreation  |              | Forestry           | <u>0</u>     |
| (c) Wetlands/Riparian | <u>0</u>     | Rangeland          | <u>0</u>     |
| Areas                 |              | Other              | <u>0</u>     |

**8. Permits, Funding & Overlapping Jurisdiction.**

No permits required.

**9. Narrative summary of the proposed action:**

The proposed action is to continue a share-crop agreement with a long-time, competent lessee whereby the lessee cultivates and retains the first-cutting of alfalfa and grain hay, then continues to irrigate but does not harvest the second growth alfalfa and grain hay, instead leaving the second growth for wildlife use during winter months. The benefit and purpose is primarily for wintering elk and deer providing forage for 2,000 – 3,000 elk and 150-300 mule deer. The area is also used by upland game birds including sandhill cranes. The primary objective is to retain elk on the WMA during winter months and reduce elk presence on nearby private agricultural lands where elk come into conflict with cattle. This area is open to public hunting during the archery and general rifle seasons, and provides opportunity for elk, deer and upland game birds.

This agricultural field has been under lease with the same lessee since 1989. The lessee has shown initiative in farming practices to increase productivity including fertilizing and conditioning soil, treatment of noxious weeds, has maintained the fields in good condition, and has fulfilled all conditions of previous leases.

**10. Description and analysis of reasonable alternatives:**

**Alternative A: No Action:** Agricultural lease will not be renewed and agricultural lands will not be cultivated.

This alternative would require FWP to commit resources to manage weeds on the previously cultivated 150 acre field. Additional resources would likely be required to manage elk that leave the Wildlife Management Area to forage on adjacent private agricultural lands and come into conflict with cattle.

**Alternative B: Proposed Action:** Agricultural lease will be renewed for the mutual benefit of lessee, MFWP, and wildlife.

**PART II. ENVIRONMENTAL REVIEW CHECKLIST**

**Evaluation of the impacts of the Proposed Action including secondary and cumulative impacts on the Physical and Human Environment.**

**A. PHYSICAL ENVIRONMENT**

| <b>1. <u>LAND RESOURCES</u></b><br><br><b>Will the proposed action result in:</b>  | <b>IMPACT</b>  |             |              |                                |                                |                      |
|--|----------------|-------------|--------------|--------------------------------|--------------------------------|----------------------|
|  | <b>Unknown</b> | <b>None</b> | <b>Minor</b> | <b>Potentially Significant</b> | <b>Can Impact Be Mitigated</b> | <b>Comment Index</b> |
| a. Soil instability or changes in geologic substructure?   |                | X           |              |                                |                                |                      |
| b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility? |                | X           |              |                                |                                |                      |
| c. Destruction, covering or modification of any unique geologic or physical features?  |                | X           |              |                                |                                |                      |
|  |                | X           |              |                                |                                |                      |

|   |  |   |  |  |  |  |
|---|--|---|--|--|--|--|
| d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake? |  |   |  |  |  |  |
| e. Exposure of people or property to earthquakes, landslides, ground failure, or other natural hazard?                                  |  | X |  |  |  |  |

The proposed action would result in no changes to soil conditions since there have been agricultural activities at the location for over 20 years.

| 2. <u>AIR</u><br><br>Will the proposed action result in:   | IMPACT * |      |       |                         |                         |               |
|--|----------|------|-------|-------------------------|-------------------------|---------------|
|  | Unknown  | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Emission of air pollutants or deterioration of ambient air quality? (Also see 13 (c).)  |          | X    |       |                         |                         |               |
| b. Creation of objectionable odors?  |          | X    |       |                         |                         |               |
| c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?                             |          | X    |       |                         |                         |               |
| d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?   |          | X    |       |                         |                         |               |
| e. For P-R/D-J projects, will the project result in any discharge, which will conflict with federal or state air quality regulations? (Also see 2a.) |          | n/a  |       |                         |                         |               |

The proposed action would not change the ambient air quality at the FAS. Any dust generated from crop management activities would be short in duration and limited to the plot area.

| 3. <b><u>WATER</u></b><br><br>Will the proposed action result in:   | IMPACT  |      |       |                         |                         |               |
|---|---------|------|-------|-------------------------|-------------------------|---------------|
|   | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity? |         | X    |       |                         |                         |               |
| b. Changes in drainage patterns or the rate and amount of surface runoff?   |         | X    |       |                         |                         |               |
| c. Alteration of the course or magnitude of floodwater or other flows?  |         | X    |       |                         |                         |               |
| d. Changes in the amount of surface water in any water body or creation of a new water body?  |         | X    |       |                         |                         |               |
| e. Exposure of people or property to water related hazards such as flooding?  |         | X    |       |                         |                         |               |
| f. Changes in the quality of groundwater?   |         | X    |       |                         |                         |               |
| g. Changes in the quantity of groundwater?  |         | X    |       |                         |                         |               |
| h. Increase in risk of contamination of surface or groundwater?   |         | X    |       |                         |                         |               |
| i. Effects on any existing water right or reservation?  |         | X    |       |                         |                         |               |
| j. Effects on other water users as a result of any alteration in surface or groundwater quality?  |         | X    |       |                         |                         |               |
| k. Effects on other users as a result of any alteration in surface or groundwater quantity?   |         | X    |       |                         |                         |               |
| l. <u>For P-R/D-J</u> , will the project affect a designated floodplain? (Also see 3c.)   |         | n/a  |       |                         |                         |               |
| m. <u>For P-R/D-J</u> , will the project result in any discharge that will affect federal or state water quality regulations? (Also see 3a.)        |         | n/a  |       |                         |                         |               |

This area has been sprinkler irrigated for hay crops since before FWP acquired the lands. Cultivation includes diversion of water from two streams and possible minor impacts to ground water from leaching of fertilizers. Runoff from sprinkler irrigation is very minor. Irrigation/cultivation here has been in practice since before MFWP acquired the lands in 1989, therefore renewing the lease will not result in any changes to impacts on surface water, ground water, run-off, or other water rights. The agricultural fields are bounded by wetlands to the north and south and do not border the Yellowstone River or tributaries.

| 4. <b>VEGETATION</b><br><br>Will the proposed action result in?  | IMPACT  |      |       |                         |                         |               |
|--|---------|------|-------|-------------------------|-------------------------|---------------|
|  | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Changes in the diversity, productivity or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)? |         | X    |       |                         |                         |               |
| b. Alteration of a plant community?  |         | X    |       |                         |                         |               |
| c. Adverse effects on any unique, rare, threatened, or endangered species?   |         | X    |       |                         |                         |               |
| d. Reduction in acreage or productivity of any agricultural land?  |         | X    |       |                         |                         |               |
| e. Establishment or spread of noxious weeds?   |         | X    |       |                         |                         |               |
| f. For P-R/D-J, will the project affect wetlands, or prime and unique farmland?  |         | n/a  |       |                         |                         |               |
| g. Other:  |         | X    |       |                         |                         |               |

Cultivation of these agricultural fields does not involve any conversion, rather a continuation of current use. Lessee is responsible for weed control (see Appendix B).

| 5. <b>FISH/WILDLIFE</b><br><br>Will the proposed action result in:   | IMPACT  |      |       |                         |                         |               |
|--|---------|------|-------|-------------------------|-------------------------|---------------|
|  | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Deterioration of critical fish or wildlife habitat?   |         | X    |       |                         |                         |               |
| b. Changes in the diversity or abundance of game animals or bird species?  |         | X    |       |                         |                         |               |
| c. Changes in the diversity or abundance of nongame species?   |         | X    |       |                         |                         |               |
| d. Introduction of new species into an area?   |         | X    |       |                         |                         |               |
| e. Creation of a barrier to the migration or movement of animals?  |         | X    |       |                         |                         |               |
| f. Adverse effects on any unique, rare, threatened, or endangered species?   |         | X    |       |                         |                         |               |
| g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?                  |         | X    |       |                         |                         |               |
| h. For P-R/D-J, will the project be performed in any area in which T&E species are present, and will the project affect any T&E species or their habitat? (Also see 5f.) |         | n/a  |       |                         |                         |               |
| i. For P-R/D-J, will the project introduce or export any species not presently or historically occurring in the receiving location? (Also see 5d.)                       |         | n/a  |       |                         |                         |               |

The objective of this lease is to increase use of the area by wintering wildlife. Cultivation begins with the onset of spring conditions when wintering wildlife are initiating movements to summer range. Most agricultural activity occurs after the WMA opens to the public May 15.

## B. HUMAN ENVIRONMENT

| 6. <u>NOISE/ELECTRICAL EFFECTS</u><br>Will the proposed action result in:                                      | IMPACT  |      |       |                         |                         |               |
|--|---------|------|-------|-------------------------|-------------------------|---------------|
|  | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Increases in existing noise levels?   |         | X    |       |                         |                         |               |
| b. Exposure of people to serve or nuisance noise levels?   |         | X    |       |                         |                         |               |
| c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property? |         | X    |       |                         |                         |               |
| d. Interference with radio or television reception and operation?  |         | X    |       |                         |                         |               |

Proposed action will have no impact on noise or electrical effects.

| 7. <u>LAND USE</u><br>Will the proposed action result in:  | IMPACT  |      |       |                         |                         |               |
|--|---------|------|-------|-------------------------|-------------------------|---------------|
|  | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Alteration of or interference with the productivity or profitability of the existing land use of an area?       |         | X    |       |                         |                         |               |
| b. Conflicted with a designated natural area or area of unusual scientific or educational importance?              |         | X    |       |                         |                         |               |
| c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action? |         | X    |       |                         |                         |               |
| d. Adverse effects on or relocation of residences?   |         | X    |       |                         |                         |               |

The proposed action would continue agricultural use of this portion of the WMA and would not conflict with other uses of the WMA (i.e. hunting, fishing, boating, hiking etc.)



| <b>8. <u>RISK/HEALTH HAZARDS</u></b><br><br><b>Will the proposed action result in:</b>  | <b>IMPACT</b>  |             |              |                                |                                |                      |
|---|----------------|-------------|--------------|--------------------------------|--------------------------------|----------------------|
|   | <b>Unknown</b> | <b>None</b> | <b>Minor</b> | <b>Potentially Significant</b> | <b>Can Impact Be Mitigated</b> | <b>Comment Index</b> |
| a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption? |                | X           |              |                                |                                |                      |
| b. Affect an existing emergency response or emergency evacuation plan, or create a need for a new plan?   |                | X           |              |                                |                                |                      |
| c. Creation of any human health hazard or potential hazard?   |                | X           |              |                                |                                |                      |
| d. <u>For P-R/D-J</u> , will any chemical toxicants be used? (Also see 8a)  |                | n/a         |              |                                |                                |                      |

The proposed action would not increase risks or health hazards at the WMA.

| <b>9. <u>COMMUNITY IMPACT</u></b><br><br><b>Will the proposed action result in:</b>  | <b>IMPACT</b>  |             |              |                                |                                |                      |
|--|----------------|-------------|--------------|--------------------------------|--------------------------------|----------------------|
|  | <b>Unknown</b> | <b>None</b> | <b>Minor</b> | <b>Potentially Significant</b> | <b>Can Impact Be Mitigated</b> | <b>Comment Index</b> |
| a. Alteration of the location, distribution, density, or growth rate of the human population of an area?                   |                | X           |              |                                |                                |                      |
| b. Alteration of the social structure of a community?  |                | X           |              |                                |                                |                      |
| c. Alteration of the level or distribution of employment or community or personal income?                                  |                | X           |              |                                |                                |                      |
| d. Changes in industrial or commercial activity?   |                | X           |              |                                |                                |                      |
| e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods? |                | X           |              |                                |                                |                      |

The proposed action would have no impact on community activities or traffic patterns within the WMA.

| <b>10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u></b><br><br><b>Will the proposed action result in:</b>   | <b>IMPACT</b>  |             |              |                                |                                |                      |
|---|----------------|-------------|--------------|--------------------------------|--------------------------------|----------------------|
|   | <b>Unknown</b> | <b>None</b> | <b>Minor</b> | <b>Potentially Significant</b> | <b>Can Impact Be Mitigated</b> | <b>Comment Index</b> |
| a. Will the proposed action have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify: |                | X           |              |                                |                                |                      |
| b. Will the proposed action have an effect upon the local or state tax base and revenues?   |                | X           |              |                                |                                |                      |
| c. Will the proposed action result in a need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?  |                | X           |              |                                |                                |                      |
| d. Will the proposed action result in increased use of any energy source?   |                | X           |              |                                |                                |                      |
| e. Define projected revenue sources*  |                | X           |              |                                |                                |                      |
| f. Define projected maintenance costs.*   |                | X           |              |                                |                                |                      |

Proposed action will have no impact on public services/taxes/utilities. There is no projected revenue, but please see Appendix B of lease agreement for estimated value of the lease. Maintenance costs are minimal and limited to maintenance of irrigation system owned by MFWP.

| 11. <u>AESTHETICS/RECREATION</u><br>Will the proposed action result in:   | IMPACT  |      |       |                         |                         |               |
|---|---------|------|-------|-------------------------|-------------------------|---------------|
|   | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?             |         | X    |       |                         |                         |               |
| b. Alteration of the aesthetic character of a community or neighborhood?  |         | X    |       |                         |                         |               |
| c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach Tourism Report.)               |         | X    |       |                         |                         |               |
| d. For P-R/D-J, will any designated or proposed wild or scenic rivers, trails or wilderness areas be impacted? (Also see 11a, 11c.) |         | n/a  |       |                         |                         |               |

Since the location of the proposed action has been used for the cultivation of crops for numerous years, the continuation of the agricultural lease would not alter any new areas within the WMA and not interfere with existing recreation activities at the WMA. Under the proposed action, no alteration of the current landscape would occur.

| 12. <u>CULTURAL/HISTORICAL RESOURCES</u><br>Will the proposed action result in:   | IMPACT  |      |       |                         |                         |               |
|---|---------|------|-------|-------------------------|-------------------------|---------------|
|   | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Destruction or alteration of any site, structure or object of prehistoric historic, or paleontological importance?     |         | X    |       |                         |                         |               |
| b. Physical change that would affect unique cultural values?  |         | X    |       |                         |                         |               |
| c. Effects on existing religious or sacred uses of a site or area?  |         | X    |       |                         |                         |               |
| d. For P-R/D-J, will the project affect historic or cultural resources? Attach SHPO letter of clearance. (Also see 12.a.) |         | n/a  |       |                         |                         |               |

MFWP's proposed lease renewal is not expected to impact on any cultural or historical resources. If any artifacts or sensitive sites are discovered, MFWP would contact the State Historic Preservation Office staff for the identification and protection of cultural or historic resources as required by Montana law (22-3-433 MCA, Montana Antiquities Act).

## SIGNIFICANCE CRITERIA

| 13. <u>SUMMARY EVALUATION OF SIGNIFICANCE</u><br><br>Will the proposed action, considered as a whole:   | IMPACT  |      |       |                         |                         |               |
|---|---------|------|-------|-------------------------|-------------------------|---------------|
|   | Unknown | None | Minor | Potentially Significant | Can Impact Be Mitigated | Comment Index |
| a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources that create a significant effect when considered together or in total.) |         | X    |       |                         |                         |               |
| b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?   |         | X    |       |                         |                         |               |
| c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard or formal plan?   |         | X    |       |                         |                         |               |
| d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?   |         | X    |       |                         |                         |               |
| e. Generate substantial debate or controversy about the nature of the impacts that would be created?  |         | X    |       |                         |                         |               |
| f. <u>For P-R/D-J</u> , is the project expected to have organized opposition or generate substantial public controversy? (Also see 13e.)  |         | n/a  |       |                         |                         |               |
| g. <u>For P-R/D-J</u> , list any federal or state permits required.   |         | n/a  |       |                         |                         |               |

## PART III. NARRATIVE EVALUATION AND COMMENT

The action proposed by this environmental assessment is the renewal of a successful agricultural lease that covers 150 acres of the Dome Mountain Wildlife Management Area. This lease, first entered into in 1989 after FWP acquired the lands, has as its objective increased forage for wintering elk and mule deer while allowing production of hay for local use. See Appendix B for Cooperative Management Agreement.

## PART IV. PUBLIC PARTICIPATION

### 1. Public involvement:

The public will be notified in the following manners to comment on this current EA, the proposed action and alternatives:

- Two public notices in the Livingston Enterprise and Bozeman Chronicle
- Public notice on the Fish, Wildlife & Parks web page: <http://fwp.mt.gov>.

Copies of this environmental assessment will be distributed to the neighboring landowners and interested parties to ensure their knowledge of the proposed project.

This level of public notice and participation is appropriate for a project of this scope having limited impacts, many of which can be mitigated.

**2. Duration of comment period:**

The public comment period will extend for (20) days following the publication of the legal notice in area newspapers. Written comments will be accepted until 5:00 p.m., April 2, 2012 and can be mailed to the address below (Part V, 2)

**PART V. EA PREPARATION**

**1. Based on the significance criteria evaluated in this EA, is an EIS required? (YES/NO)? NO  
If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action.**

The proposed action will not have a significant adverse impact on the local environment; it is a continuation of an arrangement that has proven beneficial for wildlife habitat and agriculture for the past 23 years.

**2. Person(s) responsible for preparing the EA:**

Karen Loveless  
Livingston Area Biologist  
107 Runway Lane  
Livingston, MT 59047  
406-333-4211  
kloveless@mt.gov

**3. List of agencies or offices consulted during preparation of the EA:**

Montana Fish Wildlife & Parks:  
Fisheries Division  
Wildlife Division  
Lands  
Montana Historical Society

**APPENDICES**

- A. Area Description and Map
- B. Cooperative management agreement/ Calculation of the value of hay crop left standing for wildlife
- C. Dome Mountain WMA 2012-2015 Agricultural Lease agreement

#### APPENDIX A. DESCRIPTION AND MAP OF AREA

The Dome Mountain WMA covers 4,680 acres located on the east side of the Upper Paradise Valley approximately 14 miles north of Yellowstone National Park and 30 miles south of Livingston, MT (Figure 1). The majority of the area is open bunchgrass rangeland at elevations of 5,200-7,600 feet. Much of the adjacent land is in federal ownership.

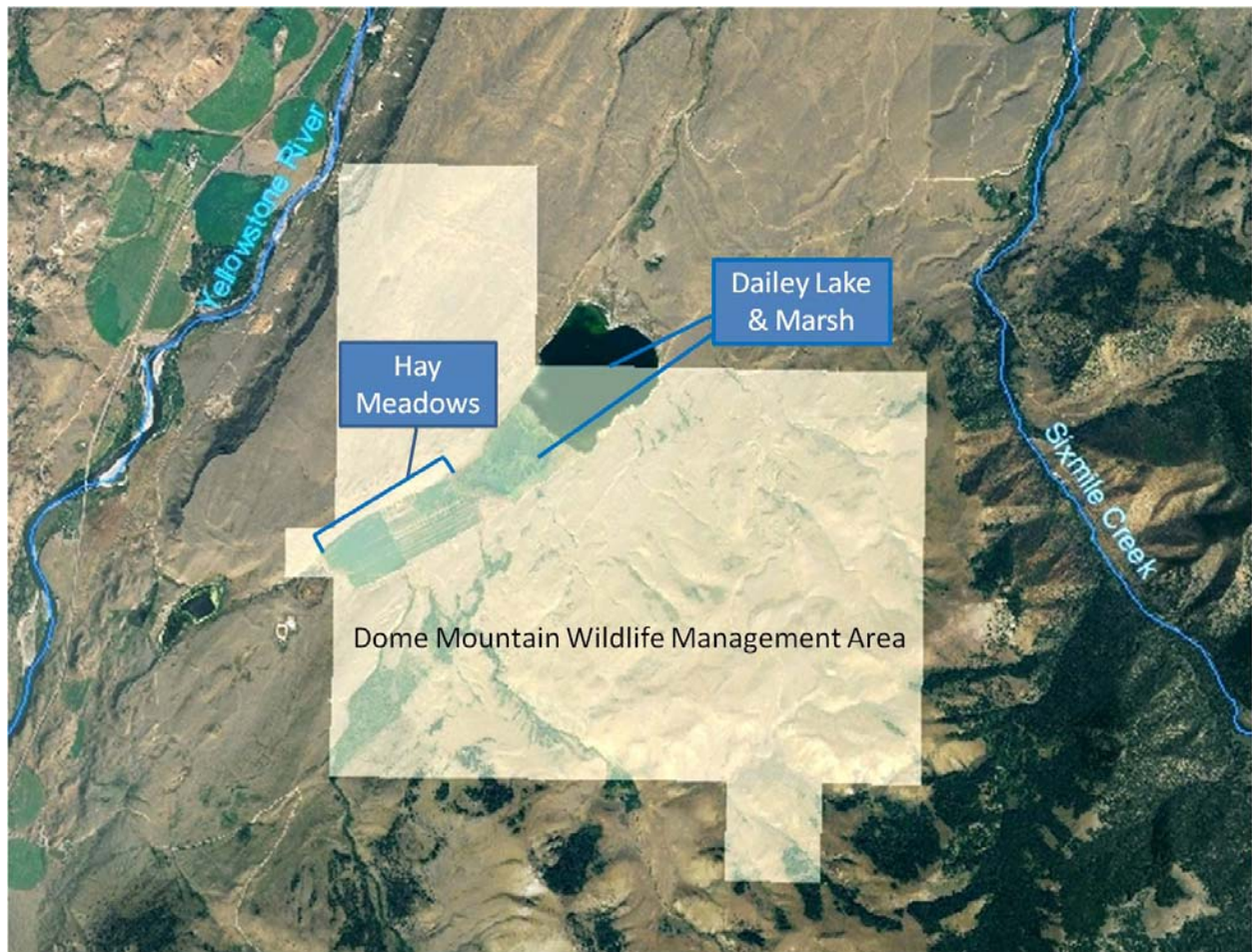
The hay meadows subject to the proposed agricultural lease renewal are located in Park County, in Township 7 South, Range 7 East, Sections 2 and 11. The meadows encompass 150 acres south of Dailey Lake and marsh (Figure 2).

Figure 1. Map of area, and location of Dome Mountain WMA



Figure 2. Aerial photo of Dome Mountain WMA and hay meadows subject to proposed agricultural lease renewal. The Dome Mountain WMA is shaded in yellow.





## **APPENDIX B: COOPERATIVE MANAGEMENT AGREEMENT**

### **Objectives:**

To produce and provide high quality forage for 150-200 deer and 2,000-3,000 migratory elk on the Dome Mountain Wildlife Management Area (WMA) by maintaining the existing hay meadows in a state of good production and leaving the second cutting crop of hay for wildlife. Forage utilization by wildlife occurs primarily from December to May depending on winter conditions.

To continue with an efficient and cost effective long-term agricultural program managed by a competent and dependable lessee. The lessee has demonstrated such qualities by successfully renovating and managing the Dome Mountain WMA hay meadows under a FWP lease since 1989.

Over the course of the last lease (2007-2011) there have been increasing problems with elk conflicts on neighboring private agricultural lands, and apparently low utilization of the Dome Mountain agricultural field by elk. Additionally, the lessee has had problems with elk remaining on the agricultural field during summer months, interfering with both first and second crop hay production. Because of these recent changes, FWP will use the duration of the proposed 3-year lease (2012-2015) to evaluate utilization of the agricultural field by wildlife year round. The intent is to quantify elk use of the Dome Mountain hay meadows in relation to other available habitat and adjacent private lands, document forage availability at the end of the growing season, and determine impacts of elk presence on 1<sup>st</sup> and 2<sup>nd</sup> hay crops during the growing season. At the end of the proposed lease FWP will report on these findings including the extent to which wildlife objectives are being met and recommendations for any changes to the current practices.

### **Specific Description of Agricultural Use Allowed:**

In addition to and in conjunction with the general stipulations found in Item 4 of the agricultural lease, the lessee is specifically responsible for and agrees to:

- a) Provide equipment, labor, seed, fertilizer, herbicides, and pesticides essential for periodically renovating the hay meadows and harvesting hay as necessary to maintain good hay production.
- b) Use the water and existing sprinkler system controlled and owned by the Department on the above described Department land for first cutting hay production and subsequent second cutting forage production for wildlife.



- c) Harvest and receive all of the first cutting hay crop.
- d) Irrigate the second cutting hay crop as weather and water conditions permit to encourage second cutting hay crop production for wildlife (existing water right runs through September 30<sup>th</sup>).
- e) Not harvest the second cutting hay crop, but instead leave it standing in the field as high quality winter wildlife forage.
- f) Provide the Department with a written report on or before December 31<sup>st</sup> of each calendar year indicating what agricultural practices were accomplished, the production rates for that year, the estimated cost of production, and the duration of irrigating the second cutting hay crop.
- g) Provide the Department with a series of 3-4 photos of the standing second cutting hay crop near the end of the growing season each year.

#### **Benefits:**

The production and removal of the first cutting hay crop will provide winter/spring forage of a higher quality for wildlife than would be available if field maintenance and first cutting hay harvest were not accomplished. The hay forage produced for wildlife (average 84 tons/yr during 2007-2011) will assist the Department in meeting its objective of supporting resident deer and elk and migratory Yellowstone elk on the Dome Mountain WMA. The Dome Mountain WMA is an important winter range destination for a large segment of the northern Yellowstone elk that migrate annually out of Yellowstone Park.

This Cooperative Management Agreement will maintain approximately 150 acres of long-established, productive, irrigated hay meadows within the local agricultural land base, producing winter forage (baled first cutting hay) for local livestock. The agreement will also protect and justify the Department's earlier investments in developing and maintaining a sprinkler irrigation system and renovating the hay meadows accomplished through a cooperative FWP/Rocky Mountain Elk Foundation habitat project.

#### **Current Agricultural Conditions and Future Plans:**

Agricultural production in Montana depends heavily on adequate rainfall during the growing season and the availability of sufficient irrigation water. During the past decade the amount of moisture has been variable, and has resulted in reduced hay production in terms of both first and second cutting hay crops in some years. In 2010, the department replaced the wheel line irrigation system to improve water use efficiency and increase hay production, at a net cost of \$58,690.

#### **Estimated Value of the Dome Mountain WMA Agricultural Lease:**

### Hay Production and Commercial Hay Value:

Based on farming records for 2007 - 2011, the first cutting hay production averaged 254 tons/year, and ranged from 185 - 328 tons/year. This is 23% higher than the previous 5-year average of 206, but still 24% less than the 1996-2001 average of 332 tons/year. Though moisture conditions improved from the previous 5 year period, 2007-2011 there were 2 years with very low moisture, compounded by persisting effects of drought on growing conditions.

The value of the first cutting hay crop averaged \$23,923 during 2007-2011, 83% higher than the 2001-2006 average of \$13,064. This increase is partly due to better hay production, and partly due to increases in hay prices (Table 1, Table 4).

During 2007-2011 the estimated second cutting hay crop averaged 84 tons/year, ranging 61-108 tons/year. The estimated value of the second cutting averaged \$7870/yr (range \$4,575-\$11,484). During 2002-2006, under dry conditions, second cutting hay production averaged 68 tons/yr with an average value of \$5,091/yr (Table 1). During 1997-2001, better growing conditions resulted in an average second cutting hay production of 109 tons/year.

### Expenses:

Based on financial records for 2007-2011, annual agricultural costs averaged \$25,239, ranging \$14,535 to \$34,275.

Costs during the previous ten years (1997-2006) averaged \$15,602 (range \$6,905-\$24,422/yr). During the previous 5 years (2002-2006) agricultural expenses averaged \$11,837 (range \$6,905-\$14,989/yr) (Table 2).

### Estimated Net Financial Benefits and Rental Value

Without the ability to anticipate future weather patterns and water availability, the rental value for the Dome Mountain WMA Agricultural Lease for the next 3-year period (2012-2015) is best determined by past five year average, which includes years with varying moisture. It is likely that growing conditions will continue to be impacted by past drought conditions, as they have been for the duration of the past lease.

During the previous 5 year period (2007-2011) the estimated net financial benefits to the lessee have averaged -\$1,316/yr (with 4 out of 5 years resulting in a negative financial benefit; Table 3). During this same period the estimated net financial benefits

to the Department and wildlife have averaged \$7,870 (Table 3). For purposes of this lease agreement the rental value (Item 2) is equal to the estimated annual financial benefit to the Department, which in this case is \$7,870.

**Table 1. Record of hay production and estimated crop values for the Dome Mountain WMA hay meadows 1989-2011.**

| Year            | 1st Cutting Hay Production (tons) |        |       | Price per Ton of Hay <sup>a</sup> | Value of 1st Cutting Hay Crop | 2nd Cutting Hay Production <sup>b</sup> (tons) |       |       | Value of 2nd Cutting Hay Crop |
|-----------------|-----------------------------------|--------|-------|-----------------------------------|-------------------------------|--|-------|-------|-------------------------------|
|                 | Alfalfa                           | Grain  | Total |                                   |                               | Alfalfa  | Grain | Total |                               |
| 1989            |                                   |        | 174   |                                   | \$8,010                       |  |       | 87    | \$5,020                       |
| 1990            |                                   |        | 281   |                                   | \$12,110                      |  |       | 141   | \$8,195                       |
| 1991            |                                   |        |       |                                   | no records available          |  |       |       |                               |
| 1992            |                                   |        | 466   |                                   | \$21,630                      |  |       | 233   | \$14,370                      |
| 1993            |                                   |        | 531   |                                   | \$25,125                      |  |       | 266   | \$16,525                      |
| 1994            |                                   |        | 404   |                                   | \$20,200                      |  |       | 202   | \$13,130                      |
| 1995            |                                   |        | 352   |                                   | \$17,900                      |  |       | 176   | \$11,440                      |
| 1996            |                                   |        | 338   |                                   | \$16,900                      |  |       | 169   | \$10,985                      |
| 1997            |                                   |        | 398   |                                   | \$24,690                      |  |       | 131   | \$9,850                       |
| 1998            |                                   |        | 404   |                                   | \$25,530                      |  |       | 133   | \$10,000                      |
| 1999            |                                   |        | 365   |                                   | \$22,675                      |  |       | 120   | \$9,035                       |
| 2000            |                                   |        | 354   |                                   | \$22,290                      |  |       | 117   | \$8,760                       |
| 2001            |                                   |        | 139   |                                   | \$9,035                       |  |       | 46    | \$3,450                       |
| 2002            |                                   |        | 263   |                                   | \$16,695                      |  |       | 87    | \$6,510                       |
| 2003            |                                   |        | 133   |                                   | \$8,445                       |  |       | 44    | \$3,300                       |
| 2004            |                                   |        | 162   |                                   | \$10,530                      |  |       | 53    | \$4,010                       |
| 2005            |                                   |        | 197   |                                   | \$12,805                      |  |       | 65    | \$4,875                       |
| 2006            |                                   |        | 273   |                                   | \$16,845                      |  |       | 90    | \$6,760                       |
| 2007            | 100.6                             | 84.5   | 185   | 75                                | \$13,875                      | 33.2   | 27.9  | 61    | \$4,575                       |
| 2008            | 107.4                             | 192.6  | 300   | 116                               | \$34,800                      | 35.4   | 63.6  | 99    | \$11,484                      |
| 2009            | 87                                | 241    | 328   | 95.5                              | \$31,324                      | 28.7   | 79.5  | 108   | \$10,314                      |
| 2010            | 105.63                            | 111.25 | 217   | 81.5                              | \$17,686                      | 34.9   | 36.7  | 71    | \$5,787                       |
| 2011            | 140                               | 100.63 | 241   | 91                                | \$21,931                      | 46.2   | 33.2  | 79    | \$7,189                       |
| <b>Averages</b> |                                   |        |       |                                   |                               |  |       |       |                               |
| 1992-1996       |                                   |        | 418   |                                   | \$20,351                      |  |       | 209   | \$13,290                      |
| 1997-2001       |                                   |        | 332   |                                   | \$20,844                      |  |       | 109   | \$8,219                       |
| 2002-2006       | 204                               | 205    | 206   |                                   | \$13,064                      |  |       | 68    | \$5,091                       |
| 2007-2011       | 108                               | 146    | 254   |                                   | \$23,923                      |  |       | 84    | \$7,870                       |

<sup>a</sup> Value based on mutual agreement during 1989-2006, and USDA September hay price reports for Montana during 2007-2011 (See table 4 for hay price history)

<sup>b</sup> Based on estimate that second cutting production averages 33% of first cutting production.

**Table 2. Record of expenses for farming, first cutting harvest and irrigation of second cutting crop for the Dome Mountain WMA hay meadows 1997-2011.**

| <b>Year</b>     | <b>Cost of Farming<sup>a</sup></b> | <b>Cost of Harvesting<br/>1st Crop<sup>b</sup></b> | <b>Cost of Irrigating<br/>2nd Crop<sup>c</sup></b> | <b>Total Expenses</b> |
|-----------------|------------------------------------|--|--|-----------------------|
| 1997            | \$6,647                            | \$12,345   | \$2,520  | \$21,512              |
| 1998            | \$9,217                            | \$12,765   | \$2,440  | \$24,422              |
| 1999            | \$6,371                            | \$12,838   | \$2,440  | \$21,645              |
| 2000            | \$7,247                            | \$11,145   | \$2,440  | \$20,832              |
| 2001            | \$3,101                            | \$4,518  | \$800  | \$8,419               |
| 2002            | \$6,641                            | \$8,348  | \$0  | \$14,989              |
| 2003            | \$6,757                            | \$4,223  | \$700  | \$11,680              |
| 2004            | \$0                                | \$5,265  | \$1,640  | \$6,905               |
| 2005            | \$0                                | \$6,403  | \$1,470  | \$7,873               |
| 2006            | \$8,718                            | \$8,423  | \$600  | \$17,741              |
| 2007            | \$7,597                            | \$6,938  | \$0  | \$14,535              |
| 2008            | \$15,675                           | \$17,400   | \$1,200  | \$34,275              |
| 2009            | \$15,092                           | \$15,662   | \$1,200  | \$31,954              |
| 2010            | \$9,957                            | \$8,843  | \$310  | \$19,110              |
| 2011            | \$13,935                           | \$10,966   | \$1,420  | \$26,321              |
| <b>Averages</b> |                                    |  |  |                       |
| 1997-2001       | \$6,517                            | \$10,722   | \$2,128  | \$19,366              |
| 2002-2006       | \$4,423                            | \$6,532  | \$882  | \$11,837              |
| 2007-2011       | \$12,451                           | \$11,962   | \$826  | \$25,239              |

<sup>a</sup> Includes cost of fertilizer, seed, pesticide, plowing, seedling, application of fertilizer/pesticide, soil tests, etc. Does not include labor to irrigate the first cutting crop. In some years lack of water and poor conditions cancelled farming practices.

<sup>b</sup> Based on the local commercial cost of harvesting hay, which is 50% of the hay crop for cutting, baling and stacking the hay.

<sup>c</sup> Labor and mileage to irrigate hay meadows after the first cutting varied between \$10 - \$30/day depending on water availability. In some drought years there was insufficient water to irrigate.

**Table 3. Estimated net financial benefits to Lessee and MDFWP from Dome Mountain WMA hay meadow lease 1997-2011.**

| Year            | Value of 1st cutting hay crop | Annual Expenses | Estimated Annual Financial Benefit to Lessee <sup>a</sup> | Estimated Annual Financial Benefit to MDFWP <sup>b</sup> |
|-----------------|-------------------------------|-----------------|---|--|
| 1997            | \$24,690                      | \$21,512        | \$3,178   | \$9,850  |
| 1998            | \$25,530                      | \$24,422        | \$1,108   | \$10,000   |
| 1999            | \$22,675                      | \$21,645        | \$1,030   | \$9,035  |
| 2000            | \$22,290                      | \$20,832        | \$1,498   | \$8,760  |
| 2001            | \$9,035                       | 8,419           | \$616   | \$3,450  |
| 2002            | \$16,695                      | \$14,989        | \$1,706   | \$6,510  |
| 2003            | \$8,445                       | \$11,680        | (\$3,235)   | \$3,300  |
| 2004            | \$10,530                      | 6,905           | \$3,625   | \$4,010  |
| 2005            | \$12,805                      | 7,873           | \$4,932   | \$4,875  |
| 2006            | \$16,845                      | \$17,741        | (\$896)   | \$6,760  |
| 2007            | \$13,875                      | \$14,535        | (\$660)   | \$4,575  |
| 2008            | \$34,800                      | \$34,275        | \$525   | \$11,484   |
| 2009            | \$31,324                      | \$31,954        | (\$630)   | \$10,314   |
| 2010            | \$17,686                      | \$19,110        | (\$1,424)   | \$5,787  |
| 2011            | \$21,931                      | \$26,321        | (\$4,390)   | \$7,189  |
| <b>Averages</b> |                               |                 |   |  |
| 1997-2001       | \$20,844                      | \$19,366        | \$1,486   | \$8,219  |
| 2002-2006       | \$13,064                      | \$11,838        | \$1,226   | \$5,091  |
| 2007-2011       | \$23,923                      | \$25,239        | (\$1,316)   | \$7,870  |

<sup>a</sup> Determined by subtracting estimated annual expenses from the value of the first cutting hay crop.

<sup>b</sup> Financial benefits to the Department are based of the estimated value of the second cutting hay crop left standing in the field as forage for wildlife. If the second hay crop was cut the cost of harvesting would reduce this value by

<sup>c</sup> The current average net financial benefits for both parties are best determined by using the most recent 5-year period as there were some years of drought conditions and some years with normal or above normal moisture, resulting in variable productivity. For purposes of this lease agreement the rental value (Item 2) is equal to the estimated annual financial benefit to the Department from 2007-2011, which in this case is \$7,870.

**Table 4. Hay price history: Prices for 1989-2006 were established by mutual agreement; hay prices for 2007-2011 were taken from September USDA Montana reports:**

<http://www.nass.usda.gov/Publications/index.asp>

| Year              | Alfalfa Hay<br>(Grass) | Other Hay<br>(Grain) | All Hay |
|-------------------|------------------------|----------------------|---------|
| 1989-1996         | 50                     | 40                   |         |
| 1997-2006         | 65                     | 55                   |         |
| 2007              | 76                     | 71                   | 75      |
| 2008              | 117                    | 111                  | 116     |
| 2009              | 96                     | 96                   | 95.5    |
| 2010              | 81                     | 84                   | 81.5    |
| 2011              | 91                     | 91                   | 91      |
| 2007-2011 Average | 92.2                   | 90.6                 | 91.8    |

## Appendix C

Designated Area: Dome Mountain WMA

Agricultural Lease No. 0000



**Montana Fish,  
Wildlife & Parks**

THIS LEASE entered into this \_\_\_day of \_\_\_\_\_, 2012, between the Montana Department of Fish, Wildlife and Parks, an agency of the State of Montana, whose main address is P.O. Box 200701, 1420 East 6<sup>th</sup> Avenue, Helena, Montana 59620-0701, hereafter referred to as the "Department" and Richard A. Kinkie, whose address is 769 East River Road, Pray, MT 59056, hereafter referred to as the "Lessee".

STATEMENT OF BENEFIT TO VEGETATION & WILDLIFE: Use hay production to provide important winter/spring forage for elk and deer while maintaining long-term productivity of existing agricultural land.

The Department is the owner of or has under its control, certain real property located in Park County, more particularly described in "Appendix A" attached hereto & incorporated herein.

The Department, in consideration of the payment of rentals specified in this lease and the mutual agreements contained in this lease, leases the property described above to the Lessee named above for agricultural purposes as herein established for the period beginning April 15, 2012, and ending December 31, 2015.

The Lessee, in consideration of the lease of the property described above and mutual agreements contained in this lease, hereby agrees to pay the rentals specified in this lease.

The parties to this lease mutually agree to the following terms and conditions:

1. **USE OF PREMISES.** The agricultural uses allowed under this lease are more specifically described in Appendix "B" attached.
2. **RENTAL.** The rental is \$7,870 each year.

☐ Payment is to be in cash.

☒ Payment is to be in services to be rendered in the manner agreed upon and more fully set out in Paragraph 14.

**ALL RENTALS, WHETHER CASH OR SERVICES, ARE DUE BY September 30<sup>th</sup> EACH YEAR FOR AGRICULTURAL USE CONDUCTED DURING THAT CALENDAR YEAR. FAILURE TO PAY THE AGREED UPON RENTAL OR TO PROVIDE THE SERVICES SET OUT IN PARAGRAPH 14 BY September 30<sup>th</sup> AUTOMATICALLY TERMINATES THIS LEASE. A NOTICE OF RENTAL DUE WILL BE SENT TO LESSEE AT THE ABOVE ADDRESS ONLY, UNLESS A CHANGE OF ADDRESS HAS BEEN PROVIDED IN WRITING TO THE DEPARTMENT'S LIAISON AS IDENTIFIED IN THIS LEASE.**

The Department shall have a lien upon all improvements, whether movable or not, all crops growing and livestock grazed upon the land for any rentals due the Department.

3. **RENTAL ADJUSTMENTS.** The Department reserves the right to determine the types and amounts of agricultural production of the leased lands annually or from time to time as the Department in its discretion shall determine necessary and to increase or



decrease such production. If the Department determines that the production of the leased lands should be increased or decreased, the Lessee agrees to pay an increased or decreased rental based upon the Department's determination.

**4. LESSEE AGREES TO:**

- a. Use the lands in a manner consistent with good, usual, reasonable and accepted farming practices, which will not cause streambank damage or other soil erosion, according to the usual and customary course of good farming practices.
- b. Use the premises agricultural purposes only. Any other use of the premises by Lessee without prior written approval of the Department shall subject this lease to immediate cancellation.
- c. Provide the Department with a written report on or before December 31<sup>st</sup> of each calendar year indicating the types of seed and processes used and yield or production rates for that year.
- d. Take all reasonable precautions to prevent fires and take such actions as are within the means of the Lessee to suppress fires.
- e. Use the land in such a manner as to control growth and spread of noxious weeds and to promote conservation of the leased lands.
- f. Not commit waste or damage to leased lands or allow any to be done.
- g. Comply with all applicable laws, rules and regulations in effect at the date of this lease, or which may, from time to time, be adopted.
- h. Indemnify and hold harmless the Department, its officers, agents and employees against any claim of damage to person or property arising out of use of the leased lands, except for any such damage caused by the negligence or willful misconduct of the Department, its officers, agents or employees.
- i. Immediately, upon termination or expiration of the term of this lease, peaceably surrender and deliver up the leased lands to the Department.
- j. Not use the leased lands or this lease agreement as collateral for credit financing, or in any way, which would encumber the title to the property herein described. Failure to comply with this provision shall automatically terminate this lease and in no way shall it be construed as to cause the Department any financial obligation or responsibly.
- k. Not disturb or remove any archaeological, historical, or other cultural features or any improvements, which may currently exist, or may be found to exist, on the premises.

5. **PUBLIC ACCESS.** All lands leased in this agreement shall remain open to the public for hunting, fishing and other recreational activities, subject to applicable Federal and State laws and regulations.

6. **HERBICIDES AND PESTICIDES.** Lessee agrees that any use of herbicides or pesticides on the leased lands will be in compliance with all provisions of Federal and State laws regulating such substances. Any application of such substances must be approved in advance, by the Department's liaison as identified in this lease.

7. **IMPROVEMENTS.** No improvements may be placed upon the premises without prior written approval of the Department.

8. **TERMINATION.** The Department reserves the power and authority, at its discretion, to terminate this lease prior to expiration upon 30 days written notice for violation for any of the terms of this lease by Lessee. The Department also reserves the power to cancel this lease for fraud or misrepresentations, or for concealment of facts relating to its issue, which if known would have prevented its issue in the form or to the party issued; for using the land for other purposes than those specifically authorized by the lease, for any unlawful or other misuse of the lands, and for any other cause which in the judgment of the Department makes the cancellation of the lease necessary in order to do justice to all parties concerned, and to protect the interest of the Department. Notice of termination shall be deemed given upon deposit in the United States mails, addressed to the Lessee at the address shown above, unless a change of address has been provided in writing to the Department's liaison. The Lessee shall, upon termination of this lease, promptly and peaceably surrender possession and occupancy of the leased lands, leaving them in as good a condition as existed at the beginning of the term of this lease. Upon such termination, all rights of the Lessee

in and to the leased lands shall cease and the Lessee shall not be entitled to any refunds of rentals paid. Termination of the lease does not terminate the Lessee's liability for any accrued rents.

9. **SUBLEASING AND ASSIGNMENT.** Lessee shall not sublease or assign all or any part of the leased lands or assign this lease in whole or in part to any other person or entity. Such a sublease or assignment automatically terminates this lease.
10. **MODIFICATIONS.** This document constitutes the sole and entire agreement between the parties. No statements, promises or inducements made by either party which are not contained in this agreement are valid or binding unless evidenced in writing and signed by both parties; except that the provisions of Paragraph 3 may be implemented by written notice from the Department.
11. **SUCCESSORS IN INTEREST.** All terms, conditions and provisions of this lease shall be binding upon, inure to the benefit of, and be enforceable by and upon the successors in interest of the Department and the Lessee.
12. **VENUES AND APPLICABLE LAW.** Venue for any court action arising under this lease shall be in the First Judicial District in and for the County of Lewis and Clark, Montana and this lease shall be interpreted according to the laws of the State of Montana.
13. **DEPARTMENT LIAISON.** The Department designates Karen Loveless, as liaison under this lease. Lessee will make all official contacts with the Department through the liaison.
14. **SPECIAL CONDITIONS:**

IN WITNESS WHEREOF, THE PARTIES HAVE EXECUTED THIS LEASE ON The DAY AND YEAR FIRST ABOVE WRITTEN.

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Montana Fish, Wildlife & Parks

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Lessee

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Department Attorney  
(As needed)

(GRAZLS Revised 2/2006)

BE SURE TO INCLUDE APPENDIX "A" (LEGAL DESCRIPTION OF LAND ACTUALLY LEASED-OUT) AND EXHIBIT "n/a" GRAZING PLAN  
AS NEEDED.